BELLSOUTH

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April 28, 1999

Mr. Dale N. Hatfield
Chief, Office of Engineering and Technology
Federal Communications Commission
2000 M Street, NW, Room 480
Washington, DC 20554

RE: Final Disruption Report

Dear Mr. Hatfield:

Pursuant to the requirements of the Commission's Order in CC Docket 91-273, released February 27, 1992, BellSouth Telecommunications, Incorporated submits a Final Service Disruption Report for a service outage that occurred on March 29, 1999.

The attached final report completes our response on the March 29, 1999 outage. It includes an update of the information previously provided in the 72 Hour Initial Service Disruption Report that was sent to the Commission's Watch Office on March 30, 1999.

If you have any questions concerning this report, please contact the undersigned.

Sincerely,

Ben G. Almond (wrg)
Ben G. Almond
Vice President-Federal Regulatory

Attachment

cc: Robert Kimball

FINAL SERVICE DISRUPTION REPORT

This Final Service Disruption report is filed by BellSouth Telecommunications Inc., in accordance with both the First and Second Report and Order Amendment of Part 63.100 of the Federal Communications Commission's rules. A 72-Hour Initial Service Disruption Report for this March 29, 1999 Albany - Thomasville, Georgia outage was filed with the FCC Watch Officer on March 30, 1999.

GEOGRAPHIC AREA AFFECTED:

The facility affected during this outage serves BellSouth customers in the rural cities of Albany and Thomasville, Georgia as well as independent telephone companies serving Blakely, Warwick, Atapulgus and Cairo, Georgia (all of which are in LATA 444).

DURATION OF OUTAGE:

BellSouth's subsequent investigation confirmed the service outage occurred intermittently from 9:15 AM EST until 13:24 PM EST on March 29, 1999.

ESTIMATED NUMBER OF CUSTOMERS AFFECTED:

BellSouth's initial service disruption reported noted 2,880 potentially-affected customers. Further investigation determined intermittent blockage was seen on one trunk group out of Thomasville and three trunk groups out Albany, Georgia. These trunks groups serve potentially 7,800 customers.

TYPES OF SERVICE AFFECTED:

Initially, this failure was shown as having impacted Inter-Office and Intra-LATA. Subsequent review of data verified Inter-LATA service was also affected. In addition, an independent telephone company in Blakely, Georgia was CCS7 isolated during two instances. The first from 11:45:27AM EST until 11:57:27AM EST for a total duration of 12 minutes. The second instance from 12:02:19PM EST until 12:02:55PM EST for a total duration of 36 seconds.

ESTIMATED NUMBER OF BLOCKED CALLS:

BellSouth's Initial Service Disruption Report noted 15,144 estimated blocked calls. Further review of the failure verified there was approximately 15,638 blocked calls during this event.

APPARENT OR KNOWN CAUSE OF THE INCIDENT:

As correctly noted on the Initial Service Disruption Report, the Category of Incident Which Makes this Reportable was "fire".

The primary cause of this event was due to a fire of unknown origin that badly burned BellSouth's F7009 fiber cable and left it very brittle. This was 4CJX-010- type AT&T fiber that had clear cladding with very faded ink markings. It was manufactured in 1984 and placed into service in 1985.

In addition to the above primary cause, there was a secondary cause which was BellSouth's inability to correctly identify and splice the faded, colored fibers (which ultimately led to varied service interruptions).

ROOT CAUSE:

Primary - Forest fire of unknown origin
Secondary – Inability to correctly identify fibers due to faded fiber markings/colors

METHODS USED TO RESTORE SERVICE:

On March 28,1999 at 4:57PM EST, surveillance personnel began investigating facility alarms on the F7009 fiber cable between Ochlocknee and Pelham, Georgia. It was found all service switched to the protect route. The carrier systems were route diversified.

Field forces continued maintenance efforts to locate the original cause of the alarms, and at approximately 12:15AM EST on March 29, 1999, they found the site of the burned fiber failure located 1.6 miles from Ochlocknee, Georgia toward Pelham, Georgia.

Splicing technicians and equipment were dispatched to the site to splice and repair the damaged cable. While working on this fiber, BellSouth found the individual fibers to be brittle and their color faded. This led to the fibers being incorrectly identified, mistakenly transposed and spliced. The transposition caused interruptions on the carrier systems that were riding the fiber. Each time the attempts were made to correct the splices, service would switch back to the defective route. BellSouth would then initiate manual switch-to-protects on these sonet carrier systems, and call blockages would stop. At 1:24PM EST on March 29, 1999, the new section of fiber cable was correctly spliced and service was restored to the normal configuration.

STEPS TO PREVENT RECURRENCE:

BellSouth investigated and determined this fire to be of unknown origin with no determination of liability for the damaged fiber cable.

BellSouth contacted the manufacturer about this incident, and the manufacturer confirmed the color fading is a known problem in this type fiber.

EVALUATION OF EFFECTIVENESS AND APPLICATION OF NRC RECOMMENDATIONS AND BEST PRACTICES

Having reviewed the Network Reliability Council's Compendium of Technical Papers, Section G (Fire Prevent in Telecommunications Facilities), there are no root cause categories or best practices relative to this particular failure scenario.